JOINT MANAGEMENT PLAN REVIEW

DRAFT ACTION PLAN: Wildlife Disturbance - Motorized Personal Watercraft

REVISED: March 21, 2003

***Please Note**: The MBNMS and the Sanctuary Advisory Council have tasked the management plan working groups with development of draft action plans that characterize the issue or problem and identify strategies and activities that address the issue. The working groups will develop these strategies and activities as they meet over the next several months. With this goal in mind, the progress of the group, the decisions, areas of agreement will be outlined in a progressively developed action plan identifying draft goals, issue characterizations, and strategies and activities. Members of the group as well as other interested parties should look to this draft action plan as it develops as a way of tracking the group's progress and decisions.*

ACTION PLAN GOALS

To minimize disturbance of marine wildlife by motorized personal watercraft, min imize user conflicts, and provide opportunities for MPWC use within the Sanctuary.

INTRODUCTION

Motorized Personal Watercraft (MPWC) are small, fast, and highly maneuverable craft that possess unconventionally high thrust capability and horsepower relative to their size and weight. This characteristic enables them to make sharp turns at high speeds and alter direction rapidly, while maintaining controlled stability. Their small size, shallow draft, instant thrust, and "quick reflex" enable them to operate closer to shore and in areas that would commonly pose a hazard to conventional craft operating at comparable speeds. Many can be launched across a beach area, without the need for a launch ramp. Most MPWC are designed to shed water, enabling an operator to roll or swamp the vessel without serious complications or interruption of vessel performance. The ability to shunt water from the load carrying area exempts MPWC from Coast Guard safety rating standards for small boats. MPWC are also designed to accommodate sudden separation and quick remount by a rider. MPWC are not commonly equipped for night operation and have limited instrumentation and storage space compared to conventional vessels. MPWC propelled by a directional water jet pump do not commonly have a rudder and must attain a minimum speed threshold to achieve optimal maneuverability. They have no steerage when the jet is idle.

Water jet-propelled MPWC gained mainstream popularity in the United States in the 1980s, and sales accelerated through the 1990s. Their size, power, speed and sophistication have advanced steadily. Current models can carry between 1 and 5 passengers and achieve speeds between 30 and 60 miles per hour. Engine size and horsepower and vessel range and endurance have increased over time.

In addition to water jet-propelled MPWC, other craft exist that are extremely maneuverable at high speeds, have shallow drafts, and powerful thrust/weight ratios, including small jet boats, air boats, hovercraft (air cushioned craft), hydrofoils, and miniature speed boats. Some of these also possess the ability to shunt water from the load carrying area.

The majority of MPWC currently operated within the Monterey Bay National Marine Sanctuary (MBNMS) are compact water jet-propelled craft that shed water from the passenger spaces. Larger size models are preferred in the high-energy ocean environment for increased power, range, and towing ability. Popular uses are operation within the surf zone, weaving in and out of wave lines, launching off the crest of waves and wakes, and towing surfers into large and/or remote wave breaks. MPWC are often operated in pairs or larger groups for camaraderie and improved safety.

At least eight State and local public safety agencies currently operate MPWC within the MBNMS for purposes of surf zone rescue. These agencies preposition MPWC ashore and conduct periodic training for potential ocean search-and-rescue missions. Public safety officials assert that MPWC are the only craft that can safely access the high-energy surf zone due to their rapid acceleration and maneuvering capabilities and that the craft provide an important tool for conducting rescues that would prove too risky or impossible to accomplish with other vessel types.

Use of MPWC to tow surfers into large waves at Mavericks, a surf break off Pillar Point in San Mateo County, is a relatively new technique in surfing, allowing surfers to catch massive waves previously considered too large to ride. Use of MPWC for this purpose has increased dramatically during the past few years at Mavericks and has fostered the development of annual competitions at the site. Also, tow-in surfing activity has been increasing at many traditional surfing locations in the Sanctuary (including Mavericks), regardless of surf conditions. On days with moderate or low surf, MPWC provide ready access and improved flexibility for positioning surfers on wave breaks. On high surf days, MPWC provide access to areas normally considered too dangerous by paddle surfers. The MBNMS has received complaints by surfers, beachgoers, and coastal residents that the use of MPWC in traditional surfing areas has produced conflicts with other ocean users and caused disturbance of wildlife. During the designation of the MBNMS, the operation of MPWC in nearshore areas was identified as an activity that should be prohibited to avoid such impacts.

Since 1993, Sanctuary regulations have specifically defined MPWC and restricted them to certain zones in the Sanctuary in order to protect marine mammals and seabirds and minimize nearshore multiple use conflicts. However, many current MPWC designs do not fall within the Sanctuary's current definition of Motorized Personal Watercraft because the definition was based on prevailing design and performance characteristics in 1992 that quickly became obsolete. As a result, newer MPWC have been operating in nearshore areas throughout the MBNMS, contrary to the *intent* of the Sanctuary's MPWC restrictions. Larger MPWC (3+ passenger capacity) comprise the majority of MPWC observed in the Sanctuary today. Since these craft are exempt (by definition) from current Sanctuary restrictions, the existing MPWC zones receive limited use and have become increasingly

ineffective in serving their intended purpose.

IMPACTS TO RESOURCES

The high speed and maneuverability of personal watercraft and the tendency to operate them in a persistent and repetitive manner within discrete nearshore areas, poses a significant potential disturbance to animals and habitats within the Sanctuary. Potential impacts include physical damage to marine life and shallow habitats, and behavioral modification and site abandonment/avoidance by sea birds, marine mammals, and sea turtles. In addition to environmental impact threats, conflicts have persisted between MPWC and other recreational ocean users due to the erratic noise signature and operation of MPWC.

At the time of designation of the MBNMS in 1992, observed disturbance of marine mammals by MPWC led, in part, to the restriction of these craft in the Sanctuary. The 1992 Environmental Impact Statement prepared for designation provides further discussion of impacts from MPWC use. The MBNMS continues to receive anecdotal information from ocean users in the Sanctuary indicating that common operating patterns for these craft create an environment that induces wildlife to relocate from the area of operation for extended periods of time. According to reported observations, marine mammals and birds do not simply shift their positions several yards to evade the craft. Instead, they evacuate the area until some time after the operations have ceased.

The United States Court of Appeals for the District of Columbia Circuit reviewed evidence presented by the National Oceanic and Atmospheric Administration (NOAA) in 1995 concerning MPWC environmental impacts and made the following findings:

> The record is full of evidence that machines of this sort threatened the Monterey Bay National Marine Sanctuary. NOAA received written comments and testimony from marine scientists, researchers, federal agencies, state agencies, state and local governments, business organizations, and more than a hundred citizens on the issue of regulating these machines. Everyone agreed - personal watercraft interfered with the public's recreational safety and enjoyment of the Sanctuary and posed a serious threat to the Sanctuary's flora and fauna. The concept of a "sanctuary" entails elements of serenity, peace, and tranquility. Yet the commenters described instances of personal watercraft operators harassing sea otters and other marine mammals, disturbing harbor seals, damaging the Sanctuary's kelp forests, menacing swimmers, divers, kayakers, and other recreational users, and generally disrupting the esthetic enjoyment of the Sanctuary. All concerned recommended either prohibiting personal watercraft outright or restricting them to specific areas in the Sanctuary. No one urged NOAA to do nothing about the problem. (Personal Watercraft Industry Ass'n v. Department of Commerce, 48 F.3d 540, C.A.D.C., 1995)

Though no targeted scientific research has occurred within the MBNMS on environmental impacts of MPWC, scientific research and evaluations have been conducted elsewhere that are applicable to this site. MPWC can operate closer to shore at high speeds and make quicker turns than other types of motorized vessels. MPWC have a disproportional thrust capability and horsepower to vessel length and/or weight, in some cases four times that of conventional vessels (U.S. Dept. of Interior, 1998). Research indicates that impacts associated with MPWC tend to be locally concentrated, producing effects that are more geographically limited yet potentially more severe than motorboat use, due to repeated disruptions and an accumulation of impacts in a shorter period of time (Snow, 1989). MPWC are generally of smaller size, with a shallower draft (4 to 9 inches), and lower horsepower (around 75, as compared to up to 250 for large pleasure craft) than most other kinds of motorized watercraft (Ballestero, 1990; Snow, 1989). Their instantly high thrust capability, small size and shallow draft make MPWC more maneuverable and operable closer to shore (and in shallower waters) than other types of motorized watercraft. These characteristics greatly increase the potential for MPWC to disturb fragile nearshore habitats and organisms.

MPWC operation poses particular risk to sensitive estuarine and stillwater areas within the Sanctuary. Research in Florida indicates that MPWC can increase turbidity and may redistribute benthic invertebrates, and these impacts may be prolonged as a result of repeated use by multiple machines in a limited area. That research has also shown that MPWC can increase local erosion rates by launching and beaching repeatedly in the same locations (Snow, 1989). Such impacts could be significant in sensitive Sanctuary estuarine areas such as Elkhorn Slough or Pescadero Marsh. Past research in the Everglades National Park indicated that fishing success dropped to zero when fishing occurred in the same waters used by MPWC, and scientists in the Pacific Northwest have raised concerns about the effects of water-jet propelled craft on spawning salmon (Snow, 1989; Sutherland and Ogle, 1975) in shallow water areas. Salmon are a Federally listed species that migrate through the MBNMS.

Research in Florida also found that MPWC cause wildlife to flush at greater distances, with more complex behavioral responses than observed in disturbances caused by automobiles, all-terrain vehicles, foot approach, or motorboats. This was partially attributed by the scientists to a common operational characteristic of MPWC, where they accelerate and decelerate repeatedly and unpredictably, and travel at rapid speeds directly toward shore, while motorboats generally slow down as they approach shore (Rodgers and Smith, 1997). A study of harbor seal reactions to vessel disturbance in San Francisco Bay between 1998 and 2001 concluded that watercraft exhibiting sudden speed and directional changes were much more likely to flush seals than vessels passing at a steady speed and constant course (Green and Grigg, 2001). Scientific research also indicates that even at slow speeds, MPWC pose a significantly stronger source of disturbance to birds than conventional motorboats. Levels of disturbance are further increased when MPWC are operated at high speeds or outside of established boating channels (Burger, 1998). Research in the Imperial National Wildlife Refuge directly attributed declining nesting success of grebes, coots, and moorhens to the noise and physical intrusion of MPWC (Snow, 1989).

Numerous shoreline roost sites exist within the Sanctuary, and research has shown that human disturbance at bird roost sites can force birds to completely abandon an area. Published evidence strongly suggests that estuarine birds may be seriously affected by even occasional disturbance during key parts of their feeding cycle, and when flushed from feeding areas, such as eelgrass beds, will usually abandon the area until the next tidal cycle (Kelly, 1997). Seabirds such as common murres and sooty shearwaters often form large aggregations on the surface of the ocean. Feeding aggregations of sooty shearwaters can often number in the thousands and cover significant offshore areas. These feeding flocks are ephemeral in nature and their movement is dictated by the availability of their prey. These seabirds are especially susceptible during these critical periods and disturbance could have negative impacts on them.

Researchers note that MPWC may be disruptive to marine mammals because they change speed and direction frequently, are unpredictable, and may transit the same area repeatedly in a short period of time. In addition, because MPWC do not produce low-frequency long distance sounds underwater, they do not signal surfacing mammals or birds of approaching danger until they are very close to them (Gentry, 1996; Osborne, 1996). Possible disturbance effects of MPWC on marine mammals could include shifts in activity patterns and site abandonment by harbor seals and Steller sea lions; site abandonment by harbor porpoise; injuries from collisions; and avoidance by whales (Gentry, 1996; Richardson et al., 1995).

The MBNMS includes the primary population and breeding range for the California sea otter (a federally protected species). Sea otters are present throughout Sanctuary coastal and estuarine areas and eat the equivalent of twenty to thirty percent of their body mass each day to maintain their body temperature. They are commonly found in or near the surf zone. According to the Otter Project, California sea otters spend 17 to 38 percent of their time foraging and 50 to 68 percent of their time resting. Food passes completely through the digestive tract in about 2.8 hours. If unable to forage for food, an adult sea otter would starve to death in about three days (MBAF, 1999). Adult females typically give birth to a single pup each year. Primary pupping occurs in the spring but continues year round. Pups are completely dependent upon their mothers at birth and remain with them for 8 to 12 months. The manner in which MPWC are often operated within the surf zone and nearshore areas of the Sanctuary poses increased risks to these animals from broad and sustained disturbance of foraging/resting areas and potential separation of mothers from pups during evasion behavior.

HISTORY OF MPWC MANAGEMENT IN THE MBNMS

The Monterey Bay National Marine Sanctuary restricted use of MPWC (as defined below) upon designation in 1992 and confined these craft to four zones outside of the four harbors in the Sanctuary, to help protect Sanctuary habitats, sensitive marine life, and other recreational users. The MBNMS regulation defines a MPWC as *any motorized vessel that is less than fifteen feet in length as manufactured, is capable of exceeding a speed of fifteen knots, and has the capacity to carry not more than the operator and one other person while in operation. The term includes, but is not limited to, jet*

skis, wet bikes, surf jets, miniature speed boats, air boats, and hovercraft. Since adoption of this regulation, most MPWC manufacturers have designed vehicles that fall outside the MBNMS definition. Many MPWC models are now capable of carrying two, three or four people in addition to the operator and are therefore not subject to the MBNMS regulation.

The 1992 regulation limiting operation of MPWC to four zones within the MBNMS was legally challenged prior to its scheduled effective date of January 1, 1993. The Personal Watercraft Industry Association (PWIA) claimed that the regulation was arbitrary and capricious, was not supported by adequate evidence, unfairly singled out personal watercraft, was not necessary or reasonable, and that NOAA had failed to respond to PWIA comments on the regulation. NOAA lost the case in U.S. District Court and appealed it to the U.S. Court of Appeals for the District of Columbia Circuit. The appeals court judges unanimously rejected each of PWIA's claims, overturned the lower court decision, and issued a mandate in May 1995 that reinstated the regulation limiting MPWC operations in the Sanctuary.

The MBNMS began deployment of 21 buoys to mark the MPWC zones in June 1996, completing the task in October 1996. Currently, motorized personal watercraft may launch only within the identified harbors and must proceed directly to the operating zone outside each harbor through a specified 100-yard wide access route. Zone boundaries are marked by a total of 21 yellow Sanctuary can buoys and 4 Coast Guard navigation aids. The zone buoys are positioned along the perimeter of each zone; however, they present added navigation hazards to mariners. The zones and access routes have been established by Federal regulation (Title 15, Code of Federal Regulations, Part 922, Subpart M, Appendix D) and lie adjacent to Monterey, Moss Landing, Santa Cruz, and Pillar Point Harbors. The zone markers are bright yellow, Class IV ionomer foam buoys that are registered with the U.S. Coast Guard, have individual markings, and appear on official nautical charts. They extend approximately four feet above the waterline and have internal radar reflectors.

In order to inform users about use of the zones, eight large enamel interpretive signs were designed, produced, and installed at launch ramps in the four harbors within the Sanctuary. The signs are customized to each harbor location with text of Sanctuary MPWC regulations superimposed on a map depicting the nearest operating zone and access route. The Sanctuary also designed and published several thousand brochures to provide personal instructions for using the zones and complying with MBNMS regulations. The brochures were distributed to harbor offices and some retail shops. The total initial costs (material, transportation, and personnel) for deployment of buoys, signage, and brochures was estimated at $83,000 in 1997. Annual maintenance cost for the buoy system ranges from $12,000 to $15,000 per year, but is expected to drop slightly due to routine equipment rotation schedules begun in 2002. This does not include costs for republishing brochures or repairing/replacing signage.

Empirical observations indicate that most MPWC operation occurs off the coast of Santa Cruz and Half Moon Bay. While use does occur in the waters off the Monterey Peninsula and Moss Landing, it

probably amounts to less than half of operation occurring off Santa Cruz and Half Moon Bay. Since larger MPWC (3+ person capacity) have become more common in the Sanctuary, the effectiveness of the zones in preventing MPWC nearshore activity has diminished.

Motorized personal watercraft are defined as Class A inboard boats by the U.S. Coast Guard and are subject to most boating regulations. MPWC operators are held accountable for operating in a safe manner and have been occasionally cited by State peace officers for reckless operation of a vessel. Current California law restricts all vessels to a maximum speed of 5 mph within 100 feet of a swimmer or within 200 feet of known swimming or nearshore use areas and prohibits nighttime MPWC operation. The City of Santa Cruz has prohibited MPWC operation (as defined in MBNMS regulations) within ocean waters under its jurisdiction.

In addition to NOAA enforcement personnel, selected State Game Wardens and State Park Rangers conduct both interpretive and civil enforcement activities on behalf of the Sanctuary. Most MPWC violations of MBNMS regulations involve operation outside of designated zones. Many verbal warnings have been issued since 1996 (when the zones were marked) in an effort to educate MPWC operators about restrictions in the Sanctuary. Less than 10 fines (typically $500 each) have been issued by the MBNMS for unlawful operation outside of MPWC zones. This has been due, in part, to an interpretive enforcement emphasis in the early years following establishment of the zones, limited enforcement patrol staff, and the decreased use of restricted MPWC models in the Sanctuary.

Sanctuary education and outreach efforts regarding motorized personal watercraft currently consist of 1.) publication and distribution of a general brochure, which explains regulations, depicts zones, and describes potential environmental impacts of MPWC operations and tips for reducing or eliminating those impacts; 2.) signage at harbor launch ramps with information and maps depicting the MPWC zones and access routes; and. 3) occasional staff or enforcement contact with users to inform or remind them of Sanctuary regulations and zones.

PROPOSED MANAGEMENT STRATEGIES

There are 5 strategies designated for this *Motorized Personal Watercraft Action Plan*, which address MPWC definition, zoning, special uses, outreach and compliance. They are listed below and described on the following pages:

MB - MPWC 1: MPWC Definition Criteria
MB - MPWC 2: Zoning
MB - MPWC 3: Exceptions to Zone Restriction
MB - MPWC 4: Educational Outreach to MPWC Community
MB - MPWC 5: Enforcement

STRATEGY MB-MPWC 1 - MPWC SAMPLE DEFINITION

Any zoning approach for managing MPWC must include a clear and precise description of the watercraft required to operate within the zone. A general concept and criteria for defining MPWC must be established that identify watercraft of concern, without inadvertently including other watercraft. Criteria must be inherent to the basic performance and design characteristics of the craft of concern, yet remain sufficiently flexible to avoid obsolescence due to future design variations. The MBNMS will modify its final definition in the future should technological advancements present a need for such change.

Activities designated for this strategy:

Activity A: Develop a revised legal definition of MPWC to include all watercraft that pose an increased threat of disturbance to Sanctuary resources and qualities due to unique design and operational characteristics. In order to establish an MPWC definition that avoids obsolescence, yet includes all craft of concern, the MBNMS should consult state-of-the-art regulatory definitions for description of high-speed, shallow draft, highly maneuverable vessels. The Sanctuary should consider combining elements of various existing definitions (if necessary) to adequately identify the types of craft of concern. The following definition is recommended as a starting point:

> *Motorized Personal Watercraft* means any watercraft, propelled by machinery, that is designed to be operated by standing, sitting, or kneeling on, astride, or behind the vessel, in contrast to a conventional boat, where the operator stands or sits inside the vessel;
>
> or any watercraft less than 16 feet in length (as manufactured) that is propelled by a water jet pump, fan, or turbine;
>
> or any motorized watercraft capable of routinely executing a 90 degree reorientation of the bow from a sustained speed of at least __ knots in less than __ seconds.

Project Status: May 2003
Potential Partners: N/A
Estimated Cost: N/A

STRATEGY MB-MPWC 2 - ZONING

The MBNMS has employed a zoning approach to MPWC management for ten years (since 1992) to prevent disturbance of marine wildlife, nearshore habitats, and other coastal users by these craft. Existing zones were sited based upon the location of public launch facilities, traditional areas of MPWC use, and local wildlife and marine recreation patterns. The number and location of zones requires reassessment based upon their effectiveness in achieving the stated goal of resource protection as well as past and future projected use patterns by MPWC. Furthermore, the high cost of buoy maintenance relative to zone use and the navigation hazards posed by marker buoys need further review. The zoning recommendations address necessary refinements to MPWC zone administration within the MBNMS.

Activities designated for this strategy:

Activity A: Criteria for determining which zones should remain open. Some zones have received limited use by MPWC operators. Utilization of the zones will be evaluated against costs and risks of maintaining the zones. The MBNMS will use the following criteria for determining whether individual zones should remain open:

1) seasonal and annual MPWC use patterns
2) wildlife impacts within the zones
3) navigational hazards posed by zone markers
4) ocean use conflicts within the zones
5) fiscal cost of establishing and maintaining zone markers, signage, and outreach products
6) availability of resources to monitor MPWC activity and enforce MPWC restrictions

Project Status: May 2003
Potential Partners: N/A
Estimated Cost: Potential cost savings depending on the number of zones remaining open.

Activity B: Improve buoy marking system. The buoy system is the best means for marking the zone boundaries for practical interpretation by users and enforcement personnel. The visibility of the zone marker buoys will be enhanced by adding pvc piping to extend their height above the waterline, by marking buoys to identify their purpose, and by incorporating prominent USCG navigational aids into boundary marking schemes whenever possible.

Project Status: May 2003
Potential Partners: USCG
Estimated Cost: $10,000

Activity C: Implement ongoing buoy maintenance program to assure buoys are on station. The MBNMS will contract with a private vendor to conduct regular maintenance and any necessary modifications to the buoy system to help assure that buoys remain on station, minimize safety hazards, and correctly mark the prescribed zones.

Project Status: May 2003
Potential Partners: N/A
Estimated Cost: $20,000 per year

STRATEGY MB-MPWC 3 - EXCEPTIONS TO ZONE RESTRICTION

In order to promote enhanced public safety goals or to facilitate world-class watersport events unique to a specific location within the MBNMS, special regulatory provisions are necessary to allow for the controlled operation of MPWC in areas of the MBNMS outside established operating zones.

At least eight State and local public safety agencies currently operate MPWC within the MBNMS for purposes of surf zone rescue. Public safety officials assert that these craft are uniquely suited to operate in the high-energy conditions present in the surf zone due to their rapid acceleration and maneuvering capabilities and that the craft provide an important tool for conducting rescues that would otherwise prove too risky or impossible to accomplish. In order to maintain an effective MPWC response capability, each agency must train its responders to be familiar with the nearshore areas and ocean dynamics in which they may be called to operate. Since many response areas are outside of MBNMS MPWC zones, public safety personnel need relief from any prohibition that would restrict familiarization and proficiency training.

The nearshore area immediately north of Pillar Point, California (popularly named "Mavericks") is known world-wide as a unique surfing venue where waves reaching a height of 50 - 60 feet occur periodically each year. It is the only site of its kind in the continental United States. Large wave surfing competitions have occurred at the site for many years. During the 1990s, some surfers began utilizing MPWC to access waves that had been previously unapproachable by traditional paddling methods. Such waves only occur during extreme swell conditions and are often affiliated with severe weather systems. Since the Mavericks area is outside of MBNMS MPWC operating zones, special provisions would be required to allow for competitive events at this location.

Activities designated for this strategy:

Activity A: Regulatory exception for training of public safety personnel. NOAA will revise its regulations to include an exception to MPWC restrictions for training of public safety personnel in accordance with official protocols established by the Sanctuary.

Project Status: May 2003
Potential Partners: N/A
Estimated Cost: $10,000

Activity B: Official protocols for training of public safety personnel. The Sanctuary will consult with public safety agencies assigned jurisdictional authority within the Sanctuary to develop MPWC training protocols for their emergency response personnel. At a minimum, the protocols will include the following terms and conditions:

1) Training shall be conducted only by official government public safety personnel assigned to local units exercising jurisdictional authority within the Sanctuary.
2) Training shall not occur in sensitive habitat areas or disturb marine wildlife
3) Training shall not interfere with other ocean users
4) Authorized public safety agencies shall select training areas and periods in coordination with the MBNMS.
5) Authorized public safety agencies shall consult with the MBNMS in advance of ocean training sessions
6) Trainees shall use only agency equipment that is marked for ready identification by the public
7) Trainees shall perform training in accordance with strict standards prescribed by their respective agencies and approved by the MBNMS

Project Status: May 2003
Potential Partners: USCG, CDPR; Cities of Marina, Santa Cruz, Capitola, Half Moon Bay, and Monterey; Pillar Point Harbor; and Pacific Grove Ocean Rescue
Estimated Cost: $5,000

Activity C: Authorization program for tow-in surfing activities at Mavericks (Pillar Point). The MBNMS will establish guidelines for the limited permitting of individuals to conduct MPWC tow-in operations at Mavericks as part of specified big-wave competition events. The guidelines will (at a minimum) include:

1) a limited entry, special use permit system (fee included)
2) monitoring and enforcement
3) standard special conditions
   - seasonal restrictions
   - minimal sea state and tide level requirements
   - proof of MPWC training certification
   - proof of insurance and required minimum coverage limits for environmental damage
   - proof of professional credentials and competition registration

Project Status: May 2003
Potential Partners: N/A
Estimated Cost: Unknown

STRATEGY MB-MPWC 4 - EDUCATIONAL OUTREACH TO MPWC COMMUNITY

Activities designated for this strategy:

Activity A: Interpretive materials (e.g. signs, brochures, PSAs, videos, etc.). The following actions will be taken to improve outreach materials:

1) Amend the primary outreach brochure to describe the zoning system and how to use the buoy system to remain within the authorized zones
2) Assure that MPWC instructional signs are large and customized to local areas
3) Replace signs that are missing from launch ramp areas
4) Place a special sign at Kirby Park notifying users that MPWC operation within Elkhorn Slough is prohibited
5) Produce an interpretive video/DVD suitable for MPWC clubs and users, describing Sanctuary MPWC regulations and guidelines and proper riding etiquette

Project Status: June 2006
Potential Partners: N/A
Estimated Cost: $45,000

Activity B: Interpretive methods (e.g. presentations, dock walkers, on-water contact, sign placement, information distribution). The following actions will be taken to improve outreach:

1) Conduct a needs assessment survey to determine the most effective method(s) of contacting MPWC users
2) Locate instructional signage in prominent locations at launch ramps
3) Conduct targeted outreach to MPWC user groups, clubs, retailers, renters, repairers, etc.
4) Purchase and install brochure dispensers at harbor launch ramps
5) Coordinate with volunteer organizations and harbormasters to provide interpretive information to MPWC operators at launch ramps

Project Status: June 2007
Potential Partners: N/A
Estimated Cost: $15,000

STRATEGY MB-MPWC 5 - ENFORCEMENT

Activities designated for this strategy:

Activity A: Monitoring (methods, patrol areas, and level of effort). The MBNMS will increase surveillance patrols and enforcement personnel to monitor MPWC zones and harbor launch points.

Project Status: June 2007
Potential Partners: NOAA OLE, USCG, CDPR, CDFG, CHP, Harbor Police, Sheriff Offices, PDs
Estimated Cost: Unknown

Activity B: Expanded deputization of local peace officers. The MBNMS will develop a plan for utilizing harbor police and other ocean-based law enforcement units to assist the Sanctuary in MPWC enforcement.

Project Status: June 2005
Potential Partners: NOAA OLE, USCG, CDPR, CDFG, CHP, Harbor Police, Sheriff Offices, PDs
Estimated Cost: Unknown